

WO 00/26243

SEQUENCE LISTING

<110> INCYTE PHARMACEUTICALS, INC.

TANG, Y. Tom

ARGENTINE, Charles C.

CORLEY, Neil C.

GORGONE, Gina A.

GUEGLER, Karl J.

BAUGHN, Mariah R.

<120> TRANSMEMBRANE 4 PROTEINS

<130> PF-0628 PCT

<140> To Be Assigned

(141) Herewith

<150> 09/183,027; unassigned

<151> 1998-10-29; 1998-10-29

<160> 7

<170> PERL Program

<210> 1

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> misc\_feature

<223> Incyte ID No: 2651154CD1

<400> 1

Met	Ala	Lys	Asp	Asn	Ser	Thr	Val	Arg	Cys	Phe	Gln	Gly	Leu	Leu
1				5					10					15
Ile	Phe	Gly	Asn	Val	Ile	Ile	Gly	Cys	Cys	Gly	Ile	Ala	Leu	Thr
			20						25					30
Ala	Glu	Cys	Ile	Phe	Phe	Val	Ser	Asp	Gln	His	Ser	Leu	Tyr	Pro
			35						40					45
Leu	Leu	Glu	Ala	Thr	Asp	Asn	Asp	Asp	Ile	Tyr	Gly	Ala	Ala	Trp
			50						55					60
Ile	Gly	Ile	Phe	Val	Gly	Ile	Cys	Leu	Phe	Cys	Leu	Ser	Val	Leu
			65						70					75
Gly	Ile	Val	Gly	Ile	Met	Lys	Ser	Ser	Arg	Lys	Ile	Leu	Leu	Ala
			80						85					90
Tyr	Phe	Ile	Leu	Met	Phe	Ile	Val	Tyr	Ala	Phe	Glu	Val	Ala	Ser
			95						100					105
Cys	Ile	Thr	Ala	Ala	Thr	Gln	Arg	Asp	Phe	Phe	Thr	Pro	Asn	Leu
			110						115					120
Phe	Leu	Lys	Gln	Met	Leu	Glu	Arg	Tyr	Gln	Asn	Asn	Ser	Pro	Pro
			125						130					135
Asn	Asn	Asp	Asp	Gln	Trp	Lys	Asn	Asn	Gly	Val	Thr	Lys	Thr	Trp
			140						145					150

Asp Arg Leu Met	Leu Gln Asp Asn Cys	Cys Gly Val Asn Gly Pro	
155		160	165
Ser Asp Trp Gln	Lys Tyr Thr Ser Ala	Phe Arg Thr Glu Asn Asn	
170		175	180
Asp Ala Asp Tyr	Pro Trp Pro Arg Gln	Cys Cys Val Met Asn Asn	
185		190	195
Leu Lys Glu Pro	Leu Asn Leu Glu Ala	Cys Lys Leu Gly Val Pro	
200		205	210
Gly Phe Tyr His	Asn Gln Gly Cys Tyr	Glu Leu Ile Ser Gly Pro	
215		220	225
Met Asn Arg His	Ala Trp Gly Val Ala	Trp Phe Gly Phe Ala Ile	
230		235	240
Leu Cys Trp Thr	Phe Trp Val Leu Leu	Gly Thr Met Phe Tyr Trp	
245		250	255
Ser Arg Ile Glu Tyr			
260			

&lt;210&gt; 2

&lt;211&gt; 305

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;223&gt; Incyte ID No: 2674553CD1

&lt;400&gt; 2

Met Ala Arg Glu Asp	Ser Val Lys Cys Leu	Arg Cys Leu Leu Tyr	
1	5	10	15
Ala Leu Asn Leu Leu	Phe Trp Leu Met	Ser Ile Ser Val Leu Ala	
20		25	30
Val Ser Ala Trp Met	Arg Asp Tyr Leu	Asn Val Leu Thr Leu	
35		40	45
Thr Ala Glu Thr Arg	Val Glu Glu Ala Val	Ile Leu Thr Tyr Phe	
50		55	60
Pro Val Val His Pro	Val Met Ile Ala Val	Cys Cys Phe Leu Ile	
65		70	75
Ile Val Gly Met Leu	Gly Tyr Cys Gly Thr	Val Lys Arg Asn Leu	
80		85	90
Leu Leu Leu Ala Trp	Tyr Phe Gly Ser Leu	Leu Val Ile Phe Cys	
95		100	105
Val Glu Leu Ala Cys	Gly Val Trp Thr Tyr	Glu Gln Glu Leu Met	
110		115	120
Val Pro Val Gln Trp	Ser Asp Met Val Thr	Leu Lys Ala Arg Met	
125		130	135
Thr Asn Tyr Gly Leu	Pro Arg Tyr Arg Trp	Leu Thr His Ala Trp	
140		145	150
Asn Phe Phe Gln Arg	Glu Phe Lys Cys Cys	Gly Val Val Tyr Phe	
155		160	165
Thr Asp Trp Leu Glu	Met Thr Glu Met Asp	Trp Pro Pro Asp Ser	
170		175	180
Cys Cys Val Arg Glu	Phe Pro Gly Cys Ser	Lys Gln Ala His Gln	
185		190	195
Glu Asp Leu Ser Asp	Leu Tyr Gln Glu Gly	Cys Gly Lys Lys Met	

	200	205	210
Tyr Ser Phe Leu	Arg Gly Thr Lys Gln	Leu Gln Val Leu Arg	Phe
	215	220	225
Leu Gly Ile Ser	Ile Gly Val Thr Gln	Ile Leu Ala Met Ile	Leu
	230	235	240
Thr Ile Thr Leu	Leu Trp Ala Leu Tyr	Tyr Asp Arg Arg Glu	Pro
	245	250	255
Gly Thr Asp Gln	Met Met Ser Leu Lys	Asn Asp Asn Ser Gln	His
	260	265	270
Leu Ser Cys Pro	Ser Val Glu Leu Leu	Lys Pro Ser Leu Ser	Arg
	275	280	285
Ile Phe Glu His	Thr Ser Met Ala Asn	Ser Phe Asn Thr His	Phe
	290	295	300
Glu Met Glu Glu	Leu		
	305		

&lt;210&gt; 3

&lt;211&gt; 1331

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;223&gt; Incyte ID No: 2651154CB1

&lt;400&gt; 3

```

gccctaccgt gtgcgcagaa agaggaggcg cttgccttca gcttgtggga aatcccgaag 60
atggccaaag acaactcaac tgttcgttgc ttccagggcc tgctgatttt tggaaatgtg 120
attattgggt gttgcggcat tgccctgact gcggagtgca tcttctttgt atctgaccaa 180
cacagcctct acccactgct tgaagccacc gacaacgatg acatctatgg ggctgcctgg 240
atcggcataat ttgtgggcat ctgcctcttc tgccctgtctg ttctaggcat tgtaggcatc 300
atgaagtcca gcaggaaaat tcttctggcg tatttcattc tgatgtttat agtatatgcc 360
tttgaagtgg catcttgtat cacagcagca acacaacgag actttttcac acccaacctc 420
ttcctgaagc agatgctaga gaggtaccaa aacaacagcc ctccaaacaa tgatgaccag 480
tggaaaaaa atggagtcac caaaacctgg gacaggctca tgctccagga caattgctgt 540
ggcgtaaatg gtccatcaga ctggcaaaaa tacacatctg cttcccgac tgagaataat 600
gatgctgact atccctggcc tcgtcaatgc tgtgttatga acaatcttaa agaacctctc 660
aacctggagg cttgtaaact aggcgtgcct ggtttttatc acaatcaggg ctgctatgaa 720
ctgatctctg gtccaatgaa ccgacacgcc tgggggggtg cctggtttgg atttgccatt 780
ctctgctgga ctttttgggt tctcctgggt accatgttct actggagcag aattgaatat 840
taagcataaa gtgttgccac catacctect tcccagagtg actctggatt tgggtgctgga 900
accagctctc tcctaataat ccacgtttgt gcccacact aacgtgtgtg tcttacattg 960
ccaagtcaga tggtagcgac ttcccttagg atctcaggct tctgcagttc tcatgactcc 1020
tacttttcat ctagtctag cattctgcaa ctttatata gactgttgaa aggagaattt 1080
gaaaaatgca taataactac ttccatccct gcttattttt aatttgggaa aataaatata 1140
ttcgaaggaa aaacaaaaaa aaggggcgcc cccgattatt gaggggtccc gagcccgaac 1200
tcgtaaccat gtaaaaccgg ttcccgggg taaaattgta atccccccac aattccccaa 1260
aacatagggc ccggaagcct aaagtttaaa accctggggg ggccctaagga gtttacccaa 1320
actccctttc t

```

&lt;210&gt; 4

&lt;211&gt; 2768

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; misc\_feature

&lt;223&gt; Incyte ID No: 2674553CB1

&lt;400&gt; 4

```

tcgacgccac catttttaaag ggattttactg cacggacttc tcccaagttc ctaggcatta 60
tcttctggac cctatcctgc agaggtgaag cgtccctttg gggactctcg ctgggtgaga 120
gggacaagaa acacccaacta ggacccaacc cgggcagcca gcggctcgag catgcgctga 180
gagtttgtgc agctggccct ggctgccgcc gctgcctcgt ccggactcgg agaggacttg 240
ggagggacag cggcgctggg aggtggctta gcagagactt tccagcaact gctgcccagg 300
actttttttt ttttttttct ttttcccagg aggcggcgac ggcggcggcg gggggagagg 360
aagagaaaaga agcgtctcca gctgaagcca atgcagccct ccggctctcc gcgaagaagt 420
tccttgcccc gatgagcccc cgccgtgcgt ccccgactat ccccgaggcg gcgtggggca 480
ccgggccccag gcccgcgat cgctgccgtt ttgcccttgg gagtaggatg tggtgaaagg 540
atggggcttc tcccttacgg ggctcacaat ggccagagaa gattccgtga agtgtctgcy 600
ctgcctgctc tacgccctca atctgctctt ttggttaatg tccatcagtg tgttggcagt 660
ttctgcttgg atgagggact acctaaataa tgttctcact ttaactgcag aaacgagggt 720
agaggaagca gtcattttga ctacttttcc tgtggttcat ccggtcatga ttgctgtttg 780
ctgtttcctt atcattgtgg ggatgttagg atattgtgga acggtgaaaa gaaatctgtt 840
gcttcttgca tggtaacttg gaagtttgct tgtcattttc tgtgtagaac tggcttgttg 900
cgtttggaca tatgaacagg aacttatggt tccagtacaa tggtcagata tggtcacttt 960
gaaagccagg atgacaaatt atggattacc tagatatcgg tggcttactc atgcttggaa 1020
tttttttctag agagagttta agtgctgtgg agtagtatat ttcactgact gggtggaaat 1080
gacagagatg gactggcccc cagattcctg ctgtgttaga gaattcccag gatgttccaa 1140
acaggcccac caggaagatc tcagtgaacct ttatcaagag ggttgtggga agaaaatgta 1200
ttcctttttg agaggaacca aacaactgca ggtgctgagg tttctgggaa tctccattgg 1260
ggtgacacaa atcctggcca tgattctcac cattactctg ctctgggctc tgtattatga 1320
tagaagggag ccggggacag accaaatgat gtccttgaag aatgacaact ctccagacct 1380
gcatgtgtcc tcagtagaac tgttgaaacc aagcctgtca agaattcttg aacacacatc 1440
catggcaaac agctttaata cacactttga gatggaggag ttataaaaag aaatgtcaca 1500
gaagaaaacc acaaacttgt tttactggac ttgtgaattt ttgagtacat actatgtgtt 1560
tcagaaatat gtagaaataa aaatgttgcc ataaaataac acctagcat atactattct 1620
atgctttaaa atgaggatgg aaaagtttca tgtcataagt caccacctgg acaataattg 1680
atgcccttaa aatgctgaag acagatgtca taccactgtg gtagcctgtg tatgactttt 1740
actgaacaca gttatgtttt gaggcagcat ggtttgatta gcatttccgc atccatgcaa 1800
acgagtcaca tatggtggga ctggagccat agtaaagggt gatttacttc taccaactag 1860
tatataaagt actaattaaa tgctaacata ggaagttaga aaataactaat aacttttatt 1920
actcagcgat ctattcttct gatgctaaat aaattatata tcagaaaact ttcaatattg 1980
gtgactacct aaatgtgatt tttgctgggt actaaaatat tcttaccact taaaagagca 2040
agctaacaca ttgtcttaag ctgatcaggg attttttgta tataagtctg tgttaaatct 2100
gtataattca gtcgatttca gttctgataa tgtaaagaat aaccattatg aaaaggaaaa 2160
tttgtcctgt atagcatcat tatttttagc ctttctgtgt aataaagctt tactattctg 2220
tcctgggctt atattacaca tataactgtt atttaaatac ttaaccacta attttgaaaa 2280
ttaccagtgt gatacatagg aatcattatt cagaatgtag tctggctctt aggaagtatt 2340
aataagaaaa ttgacacata acttagttga ttcagaaagg acttgatgc tgtttttctc 2400
ccaaatgaag actctttttg acactaaaca ctttttaaaa agcttatctt tgccttctcc 2460
aaacaagaag caatagtctc caagtcaata taaattctac agaaaatagt gttctttttc 2520
tccagaaaaa tgcttgtagg aatcattaaa acatgtgaca atttagagat tctttgtttt 2580
atttcactga ttaataact gtggcaaat acacagatta ttaaattttt ttacaagagt 2640
atagtatatt tatttgaaat gggaaaagt cattttactg tattttgtgt attttgttta 2700
tttctcagaa tatggaaaga aaattaaaat gtgtcaataa atattttcta gagagtaaaa 2760
aaaaaaaaa

```

<210> 5  
 <211> 260  
 <212> PRT  
 <213> Bos taurus

<300>  
 <308> GenBank ID No: g443785

<400> 5  
 Met Ala Lys Asp Asp Ser Thr Val Arg Cys Phe Gln Gly Leu Leu  
 1 5 10 15  
 Ile Phe Gly Asn Val Ile Ile Gly Met Cys Ser Ile Ala Leu Met  
 20 25 30  
 Ala Glu Cys Ile Phe Phe Val Ser Asp Gln Asn Ser Leu Tyr Pro  
 35 40 45  
 Leu Leu Glu Ala Thr Asn Asn Asp Asp Ile Tyr Ala Ala Ala Trp  
 50 55 60  
 Ile Gly Met Ser Val Gly Ile Cys Leu Phe Cys Leu Ser Val Leu  
 65 70 75  
 Gly Ile Val Gly Ile Met Lys Ser Asn Arg Lys Ile Leu Leu Val  
 80 85 90  
 Tyr Phe Ile Leu Met Phe Ile Val Tyr Ala Phe Glu Val Ala Ser  
 95 100 105  
 Cys Ile Thr Ala Ala Thr Gln Arg Asp Phe Phe Thr Pro Asn Leu  
 110 115 120  
 Phe Leu Lys Gln Met Leu Glu Arg Tyr Gln Asn Asn Ser Pro Pro  
 125 130 135  
 Asn Asn Asp Asp Gln Trp Lys Asn Asn Gly Val Thr Lys Thr Trp  
 140 145 150  
 Asp Arg Leu Met Leu Gln Asp Asn Cys Cys Gly Val Asn Gly Pro  
 155 160 165  
 Ser Asp Trp Gln Lys Tyr Thr Ser Ala Phe Arg Thr Glu Asn Ser  
 170 175 180  
 Asp Ala Asp Tyr Pro Trp Pro Arg Gln Cys Cys Val Met Asn Ser  
 185 190 195  
 Leu Lys Glu Pro Leu Asn Leu Asp Ala Cys Lys Leu Gly Val Pro  
 200 205 210  
 Gly Tyr Tyr His Ser His Gly Cys Tyr Glu Leu Ile Ser Gly Pro  
 215 220 225  
 Met Asn Arg His Ala Trp Gly Val Ala Trp Phe Gly Phe Ala Ile  
 230 235 240  
 Leu Cys Trp Thr Phe Trp Val Leu Leu Gly Thr Met Phe Tyr Trp  
 245 250 255  
 Ser Arg Ile Asp Tyr  
 260

<210> 6  
 <211> 253  
 <212> PRT  
 <213> Mus musculus

<300>  
 <308> GenBank ID No: g2447007

&lt;400&gt; 6

Met	Gly	Glu	Phe	Asn	Glu	Lys	Lys	Ala	Thr	Cys	Gly	Thr	Val	Cys
1				5					10					15
Leu	Lys	Tyr	Leu	Leu	Phe	Thr	Tyr	Asn	Cys	Cys	Phe	Trp	Leu	Ala
				20					25					30
Gly	Leu	Ala	Val	Met	Ala	Val	Gly	Ile	Trp	Thr	Leu	Ala	Leu	Lys
				35					40					45
Ser	Asp	Tyr	Ile	Ser	Leu	Leu	Ala	Ser	Ser	Thr	Tyr	Leu	Ala	Thr
				50					55					60
Ala	Tyr	Ile	Leu	Val	Val	Ala	Gly	Val	Val	Val	Met	Val	Thr	Gly
				65					70					75
Val	Leu	Gly	Cys	Cys	Ala	Thr	Phe	Lys	Glu	Arg	Arg	Asn	Leu	Leu
				80					85					90
Arg	Leu	Tyr	Phe	Ile	Leu	Leu	Leu	Ile	Ile	Phe	Leu	Leu	Glu	Ile
				95					100					105
Ile	Ala	Gly	Ile	Leu	Ala	Tyr	Val	Tyr	Tyr	Gln	Gln	Leu	Asn	Thr
				110					115					120
Glu	Leu	Lys	Glu	Asn	Leu	Lys	Asp	Thr	Met	Val	Lys	Arg	Tyr	His
				125					130					135
Gln	Ser	Gly	His	Glu	Gly	Val	Ser	Ser	Ala	Val	Asp	Lys	Leu	Gln
				140					145					150
Gln	Glu	Phe	His	Cys	Cys	Gly	Ser	Asn	Asn	Ser	Gln	Asp	Trp	Gln
				155					160					165
Asp	Ser	Glu	Trp	Ile	Arg	Ser	Gly	Glu	Ala	Asp	Ser	Arg	Val	Val
				170					175					180
Pro	Asp	Ser	Cys	Cys	Lys	Thr	Met	Val	Ala	Gly	Cys	Gly	Lys	Arg
				185					190					195
Asp	His	Ala	Ser	Asn	Ile	Tyr	Lys	Val	Glu	Gly	Gly	Cys	Ile	Thr
				200					205					210
Lys	Leu	Glu	Thr	Phe	Ile	Gln	Glu	His	Leu	Arg	Val	Ile	Gly	Ala
				215					220					225
Val	Gly	Ile	Gly	Ile	Ala	Cys	Val	Gln	Val	Phe	Ser	Met	Ile	Phe
				230					235					240
Thr	Cys	Cys	Leu	Tyr	Arg	Ser	Leu	Lys	Leu	Glu	His	Tyr		
				245					250					

&lt;210&gt; 7

&lt;211&gt; 1964

&lt;212&gt; DNA

&lt;213&gt; Bos taurus

&lt;300&gt;

&lt;308&gt; GenBank ID No: g443784

&lt;400&gt; 7

```

gcgtgcagag agccgacaca gtaccaggag gaggaggaga ggcttggggg aaatcctgaa 60
gatggccaaa gacgactcca ctgttcgttg cttccagggc ctgctgattt ttggaaatgt 120
gattatcggt atgtgcagca tcgccctgat ggcagagtgc atcttctttg taccagacca 180
aaacagcctc taccactgc ttgaagccac caacaatgac gacatctatg cggcagcctg 240
gattggcatg tctgttgcca tctgcctctt ctgcctctct gtcttgaggca tcgtaggcat 300
catgaagtcc aacaggaaaa ttcttctggt gtatttcatc ctgatgttta ttgtatatgc 360
ttttgaagtg gcatcttgta tcacagcagc aacacaacga gactttttca caccacacct 420
cttctgaag cagatgctgg agagatacca aaacaacagt cctccaaaca atgatgacca 480
atggaaaaac aatggagtca ccaagacctg ggacagactt atgctccagg acaattgctg 540

```

tgggtgtaa	at	ggcccg	tcag	actggc	cagaa	atacac	ctct	gccttc	cgga	ctgaga	aacag	600
cgatgctg	ac	taccct	ggc	ctcgtc	aatg	ctgtgt	tattg	aacagc	cctta	aagaac	ctct	660
caacctgg	ac	gcctgc	aaat	taggag	tgcc	tggata	actac	catagt	catg	gctgct	atga	720
gctgatct	ct	ggacca	aatga	accgac	atgc	ctgggg	agtt	gcatgg	tttg	gatttg	ccat	780
tctctgtt	gg	actttc	tggg	ttctct	tggg	taccat	gttc	tactgg	agca	gaattg	acta	840
ttaagaat	ga	agtgtat	gca	ccatacc	act	ccccac	agtg	actttg	gatt	tgggtg	ctgga	900
aatgctgt	ct	cctaatt	gttc	tacctt	tgtg	ctgccc	ggga	acttac	gcat	tcttcct	taca	960
ttgccaag	ta	cgttgg	tattg	gggttc	ccttt	aagctc	tcag	actctg	aaat	tttcag	caca	1020
tgtgtttt	ca	ccctgat	ctta	ggattc	tgc	acattg	tttat	agactg	tagg	aaaggg	agga	1080
tttaggat	ag	tagata	aataa	ctattc	cccat	ctttgt	tttat	ttttaat	gtg	ggggc	ataaa	1140
gacattct	cta	ggaacct	gtg	ttatact	gca	agccaag	tct	gtattg	gggac	agcaa	atctg	1200
cctgtatt	tc	tactgt	cttt	ctaaa	agtac	cctgat	ggca	ccccac	tcca	gtactc	ttgc	1260
ctggaaaa	tc	ccatgg	acgg	aggagc	cctga	tgggct	gcag	tccatg	gggtc	gcaaag	agtc	1320
ggacccg	act	gggcga	cttc	actttc	actt	ttcact	tttca	tgcatt	tgag	aaggaa	atgg	1380
caaccctc	ctc	cagtgt	ttct	gcctgg	agaa	tcccag	ggat	ggagg	agcct	ggaggg	ctgc	1440
cgtctatg	ggg	gtcacac	aga	gtcgg	acacg	actga	agcga	cttag	cagca	gcagc	agcaa	1500
aggctttc	at	tgtatc	agta	ttgtcc	cagt	gagaga	aacta	aggaga	agac	tgctga	aaaca	1560
tcttttga	at	ttgttt	ctatg	gtggct	ccca	cctac	agact	caagt	gattc	tcttaa	agct	1620
agcttg	ggaa	cccttt	atta	tcca	agaca	ggcct	gatct	tgaaca	aaaca	gtgggt	tga	1680
tttcctct	ca	gacact	gcag	agta	attcat	gctgg	taacc	tcaatt	ctcc	cactaa	attaa	1740
aagtac	gtga	actttt	ggga	caaagg	agag	acctgt	taca	cattta	accac	cttcaa	accta	1800
aaactgc	ttt	ccaac	aggg	aga	agca	agc	cagct	gtttac	ttaggt	gatt	taggg	1860
tgtgcact	gc	aaaat	at	ttt	ctgat	c	tgttt	ccttt	tgtgat	cctg	aagga	1920
ttataaca	ac	at	ttgt	cttt	atataa	ataa	agag	ag	tttt	aat		1964